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**United States Patent**

[19]

Carnevali

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SEARCHED

[54] **UNIVERSALLY POSITIONABLE MOUNTING DEVICE**

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**Related U.S. Application Data**

[63] Continuation of Ser. No. 689,408, Aug. 7, 1996, abandoned, which is a continuation of Ser. No. 574,415, Dec. 15, 1995, abandoned, which is a continuation of Ser. No. 433,249, Apr. 28, 1995, abandoned, which is a continuation of Ser. No. 167,500, Dec. 14, 1993, abandoned.

[51] Int. Cl. <sup>6</sup> **F16M 11/14**[52] U.S. Cl. **248/118.1; 248/276.1;**  
**248/288.31; 248/484**[58] **Field of Search** **248/481, 288.51,**  
**248/181 1, 288 31, 482, 483, 484; 403/56,**  
**90, 114, 132, 143, 144**[56] **References Cited****U.S. PATENT DOCUMENTS**

596,729	1/1898	White	403/56 X
855,149	5/1907	Vaughn et al.	
1,280,013	9/1918	Goddard	248/288.5 X
1,359,645	11/1920	Zink	
1,455,441	5/1923	Hodny	403/56 X
1,934,223	11/1933	Booth	
2,114,767	4/1938	Hodny et al.	248/481 X
2,121,317	6/1938	Cohen	248/288.5 X
2,560,556	7/1951	Creedon	248/216
2,650,788	9/1953	Hulstein	248/181 X
2,710,509	6/1955	Giller	403/141 X
3,096,061	7/1963	Bertell	248/283

3,843,272	10/1974	Jorn	403/132
4,066,311	1/1978	Bahner et al	248/13
4,491,435	1/1985	Meier	403/55
4,585,197	4/1986	Liautaud et al.	248/288.5
4,796,508	1/1989	Hoshino	248/188.5 X
5,071,279	12/1991	Rutström	403/114 X
5,251,859	10/1993	Cyrell et al.	248/288.3
5,270,911	12/1993	Maglica et al.	403/114 X

**FOREIGN PATENT DOCUMENTS**

497 11/1886 Swedea ..... 248/181

**OTHER PUBLICATIONS**

Versa-Mount Marine Pedestal/Dec. 1993.

Fish-Finder Multi-Mount/Dec. 1993.

*Primary Examiner*—Ramon O. Ramirez*Assistant Examiner*—Gwendolyn Baxter*Attorney, Agent, or Firm*—Christopher Duffy[57] **ABSTRACT**

Couplers with ball-shaped heads are mounted on a pair of objects, and a split arm assembly is interposed along a line of juncture between the pair of couplers and clamped together about the heads thereof. However, before that time, a spring is interposed between the pair of elongated arm sections in the assembly to produce a differential in the reaction of the respective pairs of end portions in the arm sections to the clamping forces so that the assembly is formed into a bifurcated arm assembly at one of the heads. That one head is also compressible so that after the split arm assembly has been rotated in relation to the one head, or vice versa, to set the angle of the line of juncture with respect to one or both of the objects, further clamping of the assembly operates to interlock the assembly with the heads of the pair of couplers to rigidify the connection made by the assembly between the pair of heads.

**37 Claims, 5 Drawing Sheets**